SUCCESS STORY

Infraserv Logistics manages the inflow of 700 trucks per day with SYNCROSUPPLY

Infraserv Logistics GmbH is managing logistics at the Höchst industrial park in Frankfurt's West End, one of Europe's largest production and research locations for the chemical and pharmaceutical industries. A central element of the industrial park's logistics is the SYNCROSUPPLY yard management system, which manages some 700 trucks and tankers arrive daily at the South Gate of the industrial park and controls their loading or unloading processes until they leave the premises.

Infraserv Logistics

Infraserv Logistics, an Infraserv Höchst Group company, is an end-to-end provider of logistics services for the chemical and pharmaceutical industry. One of its core competencies is the storage of dangerous goods and the handling active pharmaceutical ingredients. In addition, Infraserv Logistics offers modular logistics services for transportation, warehousing, customs, training and consulting across the supply chain.

www.infraserv-logistics.com

With 120 production plants and over 800 laboratories and office buildings, the Höchst industrial park in Frankfurt's West End is one of Europe's largest production and research locations for the chemical and pharmaceutical industries. The former parent plant of Hoechst AG, through which the River Main flows, covers an area of 460 hectares. Today, the industrial park is home to 90 mainly global companies engaged in pharmaceuticals, biotechnology, basic and specialty chemicals, crop protection, food additives and services, which together employ around 22,000 people. The site is operated by Infraserv GmbH & Co. Höchst KG.

One of the greatest challenges facing the industrial park is managing the logistics for the numerous companies based at the location. Infraserv Logistics GmbH is responsible for this remit. Infraserv Logistics ranks among the largest specialized chemical logistics service providers in Germany. The company is responsible at the Höchst industrial park for the gate processes of all incoming and outgoing heavy goods vehicles and handles the logistics flows for most companies on the site. Infraserv Logistics supports one of Europe's largest special chemical storage facilities at the park. Ports with various loading and unloading systems, a trimodal container terminal which is approached by trucks, ships and trains, as well as rail traffic on the site, add to the logistics challenge.

Central truck inflow control
A key aspect of the industrial park's logistics is truck inflow control, which is managed by an IT system. Every day, some 700 trucks and tankers arrive at the south Gate of the industrial park, pass through the loading or unloading processes in the shortest possible time and then leave the premises again. Precise inflow control and efficient handling of the freight vehicles is vital, since there are no large waiting areas either on the industrial park or on the site, and unnecessary waiting times should of course be avoided.

Truck inflow control is complicated, even for a "normal" chemical plant: Various forms of (hazardous goods) transport involving multichamber vehicles, trucks with trailers, container traffic, decoupled traffic or intermodal traffic must all be handled. Multi-stage processes with hazardous goods inspections, laboratory tests, weighing operations, special loading and unloading equipment that must be operated by employees trained for the purpose must be managed in such a way that the throughput times for the trucks and tankers is minimized.

In addition, these processes have to be adapted to the needs of all the different customers. There are, for example, four goods inwards and seven goods outwards procedures with a number of traffic-specific variants that have to be reliably and swiftly completed.

A new software solution was required
Even before SYNCROSUPPLY was implemented, Infraserv Logistics was using a software designed specifically for truck inflow control. The previous system controlled the gate processes at the truck entrance and exit and registered and managed practically all truck runs for the companies located on the industrial park.

In 2013, Infraserv Logistics took the decision to further optimize the processes by introducing new software. Klaus Holzbach, responsible for IT at Infraserv Logistics, explains what the new system is expected to deliver: "Replicating our complex inflow processes with complete documentation was crucial. But it was equally important for the new system to provide numerous 'future' attributes and functions."

» **This software has the best price/performance ratio and, more importantly, was the best match for our logistics structures and requirements.**
Klaus Holzbach, responsible for IT at Infraserv Logistics

Modularity and intelligent decision automation
The special customer relationships with the industrial park companies call for a strictly modular system. Every Infraserv Logistics customer receives its own service package that must be capable of being replicated in the new system by means of selectable modules. A closely related issue is that processes can change more often because a customer's needs change or because new customers come along. Non-IT employees therefore had to be able to model processes or modify programs during operation.
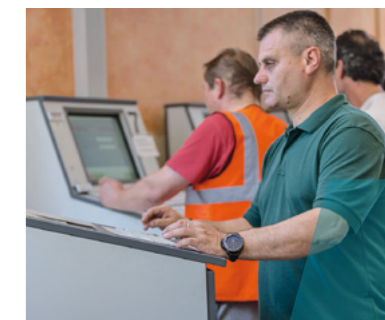
Because process complexity makes manual planning increasingly difficult, the system was to be equipped with intelligent decision-making processes. The idea is that truck arrivals and departures are scheduled evenly throughout the day, and these timings must also meet the customers' logistics requirements. This is achieved by announcing the trucks via a time slot platform. Since on "day X", the trucks are unable to arrive as announced for various reasons, the algorithms must guarantee that the resources can be re-allocated to the actual circumstances and requirements in real time.

Klaus Holzbach also felt it was important that the new system was capable of more than simply reproducing and optimizing the status quo. It must also facilitate the advancement of the logistical processes on the industrial park - through higher transparency and new insights into the processes, and by providing valid performance figures and analyses.

The automotive industry as the logistics role model
Determined to find a suitable system, the IT Manager not only looked around chemical companies, he also systematically analyzed the inflow control systems at automotive companies: "This industry has the most highly-developed logistics solutions", he said, explaining why his team focused on this sector in particular.

Car makers such as VW, Daimler and BMW use the SYNCROSUPPLY system from the Aachen-based company INFORM for their truck inflow control procedure. Some companies in the chemical and process industry also use this software. Reason enough for Infraserv Logistics to evaluate the system in terms of the described

criteria. Ultimately, SYNCROSUPPLY came out of the evaluation on top: As Klaus Holzbach explained in justification of his decision, "This software has the best price/performance ratio and, more importantly, was the best match for our logistics structures and requirements."

The new truck scheduling (TS) system

Self-service check-ins facilitate handling, and the integration of mobile end devices make it easier to control the trucks through the process. An optimized time slot structure permits more precise truck control inflow.

Klaus Holzbach therefore sees this as the implementation not only of a modern system, but also of a platform for the continuous refinement of the logistics services on offer: Summing up the project to date and the current situation going forward, the IT Manager says, "We are eager to work with our customers and INFORM, and exchange experiences with SYNCROSUPPLY users from other sectors to take the TS system to a different level. The modern, integrated, uniform, standardized and marketable IT solution requested in the tender for the future system platform was found and implemented with SYNCROSUPPLY and integrates harmoniously into the adjacent IT landscape.

"We saw and still see Infraserv Logistics as a case where SYNCROSUPPLY is able to demonstrate all its strengths: The complexity with numerous different customers, documentation obligations, management of hazardous goods transport, client-specific scalability, connections with various third-party systems etc. creates an environment which our software is able to replicate especially well", says Matthias Berlit, Head of Industrial Logistics, reviewing the project.

Results
· Uniform distribution of truck arrivals and clearances over the day
· Real-time reallocation of resources according to demand
· Consideration of the logistic requirements of the individual customers of the chemical park
· Provision of valid key figures and evaluations